

ART 2001

Claims:

1. Use of a substance which is an inositolphosphoglycan (IPG) antagonist having the property of reducing tumour cell proliferation for the preparation of a medicament for the treatment of cancer.
2. The use of claim 1, wherein the IPG antagonist is:
 - (a) a substance which is capable of inhibiting the release of IPGs; or,
 - (b) a substance capable of reducing the levels of IPGs by binding to the IPGs; or,
 - (c) a substance which is a competitive agent which is capable of reducing an effect of IPGs.
3. The use of claim 2, wherein the antagonist is a competitive IPG antagonist.
4. The use of claim 2, wherein the IPG antagonist is an anti-IPG antibody which is capable of specifically binding IPGs.
5. The use of claim 4, wherein the antibody capable of neutralising an activity of the IPGs.
6. The use of claim 5, wherein activity of the IPGs is the proliferation of tumour cells.
7. The use of any one of claims 4 to 6, wherein the antibody is a monoclonal antibody produced by hybridoma 2F7, 2D1 or 5H6, deposited at ECACC under accession numbers 98051201, 98031212 and 98030901.
8. The use of claim 2, wherein the antagonist is an inhibitor of glycosylphosphatidylinositol specific phospholipase type C (GPI-PLC).

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9. Use of the presence or amount of inositolphosphoglycans (IPGs) in a sample from a patient for the diagnosis and/or prognosis of cancer.

10. A method for the diagnosis and/or prognosis of cancer, the method comprising determining the presence or amount of inositolphosphoglycans in a sample from a patient.

11. The method of claim 10, wherein the presence or amount of the IPGs is causing tumour cell proliferation.

12. The method of claim 10 or claim 11, wherein the method comprises the steps of:

(a) contacting a sample from a patient with a solid support having immobilised thereon a binding agent having binding sites which are capable of specifically binding to the IPGs with a sample from a patient under conditions in which the IPGs bind to the binding agent; and,

(b) determining the presence or amount of the IPGs bound to the binding agent.

13. The method of claim 12, wherein step (b) comprises (i) contacting the solid support with a developing agent which is capable of binding to occupied binding sites, unoccupied binding sites or the bound IPGs, the developing agent comprising a label and (ii) detecting the label to obtain a value representative of the presence or amount of the IPGs in the sample.

14. The method of claim 13, further comprising comparing the value with standards from healthy or cancerous tissues.

15. The method of claim 13 or claims 14, wherein the

label is a radioactive label, a chemiluminescent label, a fluorophor, a phosphor, a laser dye, a chromogenic dye, a macromolecular colloidal particle, a latex bead which is coloured, magnetic or paramagnetic, or an enzyme which catalyses a reaction producing a detectable result.

15. The method of any one of claims 12 to 15, wherein the binding agent immobilised on the solid support is an antibody which is capable of binding to the IPGs.

16. The method of any one of claims 12 to 16, wherein the binding agent is immobilised at a predefined location on the solid support.

17. Use of microcrystalline cellulose for purifying or isolating a P or A-type substance, wherein the substance is a cyclitol containing carbohydrate which is:

(i) a P-type substance having the biological activity of activating pyruvate dehydrogenase (PDH) phosphatase; or,

(ii) an A-type substance having the biological activity of inhibiting cAMP dependent protein kinase.

18. The use of claim 17, wherein the use involves contacting a sample containing P or A-type substance with a column containing cellulose and eluting the substance from the column.

19. A method of purifying or isolating a P or A-type substance, wherein the substance is a cyclitol containing carbohydrate which is:

(i) a P-type substance having the biological activity of activating pyruvate dehydrogenase (PDH) phosphatase; or,

(ii) an A-type substance having the biological

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activity of inhibiting cAMP dependent protein kinase;
wherein the method comprises:

(a) loading a column containing microcrystalline cellulose with a sample containing the P or A-type substance so that P or A-type substance binds to the column; and,

(b) eluting the P or A-type substance from the column.

20. The method of claim 19, further comprising the step of dissolving the sample containing the P or A-type substance in 4/1/1 butanol/water/ethanol (B:W:E) prior loading on the column.

21. The method of claim 19 or claim 20, further comprising the step of washing the column with B:W:E and methanol.

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